

CLAIMS

1. A refrigerant composition which comprises:
  - 5 (a) pentafluoroethane, trifluoromethoxydifluoromethane or hexafluorocyclopropane, or a mixture of two or more thereof, in an amount of at least 75% based on the weight of the composition,
  - (b) 1,1,1,2- or 1,1,2,2-tetrafluoroethane, trifluoromethoxypentafluoroethane, 1,1,1,2,3,3,3-heptafluoropropane or a mixture of two or more thereof, in an amount of  
10 from 5 to 24% by weight based on the weight of the composition and
  - (c) an ethylenically unsaturated or saturated hydrocarbon, optionally containing one or more oxygen atoms, with a boiling point from -50°C to +35°C, or a mixture thereof in an amount from 1% to 4% by weight based on the weight of the composition, the weight ratio of component (a): component (b) being at least 3:1.
- 15 2. A composition according to claim 1 in which component (c) is present in an amount from 3 to 4% by weight based on the weight of the composition.
3. A composition according to claim 2 in which component (c) is present in an amount of about 3.5% by weight based on the weight of the composition.
4. A composition according to any one of claims 1 to 3 in which component  
20 (c) is one or more of propane, n-butane, isobutane, cyclobutane, cyclopropane, methylcyclopropane, pentane, isobutane, dimethylether, ethylmethyl ether, propene and oxetan.
5. A composition according to claim 4 in which component (c) is n-butane and/or isobutane.
- 25 6. A composition according to any one of the preceding claims (a) is pentafluoroethane.
7. A composition according to any one of the preceding claims in which component (a) is present in an amount from 80 to 90% by weight based on the weight of the composition.
- 30 8. A composition according to claim 7 in which component (a) is present in an amount from 83 to 88% by weight based on the weight of the composition.
9. A composition according to any one of the preceding claims in which

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component (b) is 1,1,1,2-tetrafluoroethane.

10. A composition according to any one of the preceding claims in which component (b) is present in an amount from 10 to 15% by weight based on the weight of the composition.

5 11. A composition according to any one of the preceding claims in which the weight ratio of component (a): component (b) is 5:1 to 10:1.

12. A composition according to claim 11 in which the said weight ratio is 7:1 to 9:1.

10 13. A composition according to any one of the preceding claims which comprises a further component.

14. A composition according to claim 13 in which the further component is a hydrofluorocarbon.

15. A composition according to claim 14 in which the hydrofluorocarbon has a boiling point at atmospheric pressure of at most  $-40^{\circ}\text{C}$ .

15 16. A composition according to claim 14 or 15 in which the F/H ratio in the hydrofluorocarbon is at least 1.

17. A composition according to claim 16 in which the hydrofluorocarbon is difluoromethane or trifluoromethane.

20 18. A composition according to any one of claims 13 to 17 in which the further component is present in an amount not exceeding 5% by weight based on the weight of (a), (b) and (c).

19. A composition according to claim 18 in which the further component is present in an amount not exceeding 2% by weight based on the weight of (a), (b) and (c).

20. A composition according to claim 1 substantially as hereinbefore defined.

25 21. Use of a composition as claimed in any one of the preceding claims as a refrigerant in a refrigeration apparatus.

22. The process for producing refrigeration which comprises condensing a composition as claimed in any one of claims 1 to 20 and thereafter evaporating the composition in the vicinity of a body to be cooled.

30 23. A refrigeration apparatus containing, as refrigerant, a composition as claimed in any one of claims 1 to 20.